Yangtao Zhang

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SUMMARY

Proficient Programming Languages: Python, Java, JavaScript, C++, HTML, CSS, SQL

Back-end: Flask, Django, Spring Boot, Spring Cloud, Node.js   **Databases:** MySQL, MongoDB, Redis

Front-end: jQuery, React, React Native, Vue, D3, TypeScript   **Others**: Pandas, Tableau, PyTorch, Spark, Hadoop, AWS

EDUCATION

University of Michigan, Ann Arbor, MI   Anticipated Dec.2020

Master of Science, Information Science   GPA 3.94/4.00

Course Highlights: Database Management, Information Visualization, Data Mining, Needs Assessment and Usability
Evaluation, Machine Learning, Natural Language Processing, Information Retrieval, Data Manipulation

Shanghai Jiao Tong University, Shanghai, China   Aug.2019

Bachelor of Science in Engineering, Electrical and Computer Engineering

Course Highlights: Data Structures, Algorithm, Mobile App Development, Statistic Methods in Engineering

WORK

Graduate Student Instructor, Python Programming *University of Michigan, MI*   Jan.2020-Present

- Created lab exercise, problem set and auto-graders to evaluate student's knowledge of Python programming
- Collaborated with teaching team of 10 members in GitHub for better learning experience of 230 students

NLP Research Assistant *University of Michigan, MI*   Dec.2019-Present

Developing machine learning algorithm and GUI-based software to extract customer needs from user-generated content

- Designed web crawlers to fetch 100,000 user comments and cleaned crowdsourcing labels with CrowdTruth.
- Developed sentiment analysis algorithm based on BERT and XLNET, achieving accuracy higher than 95%.

Software Development Engineer Intern *XueYao Education Technology, China*   May.2019-Aug.2019

Developed an automation tool to help operation team complete complicated daily tasks and improve working efficiency

- Designed and developed UI and interactive features with jQuery based on the needs of operation team
- Developed REST/HTTP APIs with authentication, supporting customized query, JSON/HTML data formats
- Redesigned class relationships with OOP and refactored legacy PHP backend code with Python
- Worked full stack with MongoDB, Django and jQuery following MVC pattern in an agile development environment

Data Engineer Intern *GE Appliances, China*   Jan.2018-May.2018

Developed an ETL pipeline in Python for data analysis and reporting to support data-driven decisions for business team

- Created a web crawler with PySpider to fetch 10,000 records of related products in crowd-funding market every day
- Conducted cluster analysis of trending products and keywords in crowd-funding market using K-means, TF-IDF
- Built dashboard of trending products' history, real-time popularity and prediction of future movement.

EXPERIENCE

Software Development Engineer *Foxconn, China*   May.2019-Aug.2019

Designed and developed a smart meeting assistant with cloud server, geolocation anchors and smart badges

- Set up user authentication, navigation guard, cross-site requests with HTML5 LocalStorage, cookies, Vue Router
- Managed state, view and actions of multiple components sharing common states to support multi-users with Vuex
- Worked full stack with MySQL, Flask, Vue.js and Element UI following MVVM pattern

UX Engineer *CHI Design Competition, MI*   Sep.2018-Jan.2019

Ideated and developed a self-supporting platform to promote senior's re-employment ([video demo](#))

- Designed a reusable symbol library and developed a hi-fi prototype following Google Material
- Collaborated with UX designers to implement the UI prototype with HTML, CSS, JavaScript and React Native

Data Scientist *Michigan Data Hack, MI*   Jan.2019

Analyzed Canvas Network dataset to solve real-world problem in 24 hours. Ranked 4 / 30 in final presentation

- Built two predictive models for MOOC completion rate which reached maximum accuracy of 85.20% under 0.1 bias
- Created a course recommendation system based on students' demographic and learning history for better completion